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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/660,727	09/12/2003	John B. Poling	1865.0890000/ALF	4920

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EXAMINER

HARVEY, DIONNE

ART UNIT PAPER NUMBER

2643

DATE MAILED: 11/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/660,727

Applicant(s)

POLING ET AL.

Examiner

Dionne N Harvey

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) ____ is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) 1, 2, 4-6, 8 and 9 is/are rejected.
- 7) ☐ Claim(s) 3 and 7 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 9/2003.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1, 2 and 4-6 are rejected under 35 U.S.C. 102(b) as being anticipated by **Polk (US 5,809,154)**.

Regarding claim 1, shown in figure 6, Polk teaches a loudspeaker system comprising: a transducer **12,13**; an enclosure **11** for housing said transducer; and a port disposed in said enclosure for tuning the low frequency performance of said loudspeaker system (**see column 4, lines 41-44, wherein Polk teaches that the “port” is defined as the entire air mass extending between the outer perimeters of disks 17**), said port comprising a port tube (**broadly interpreted and anticipated by the tubular air mass within the porting structure**) extending at least in part outside of said enclosure (**see the air mass within elements 17,18, which extends outside of enclosure 11**), said port tube having a predetermined internal cross-sectional area (**19**), a first external cross-sectional area near an outermost end of said port tube (**see that air mass interposed between element 18**); and a second external cross-sectional area between said first external cross-sectional area and said enclosure such that said first external cross-sectional area is larger than said second external cross-sectional area (**see that section of the air mass where said air mass narrows so as to**

extend into the speaker enclosure), and a port cover for covering the outermost opening of said port tube, wherein said port cover is generally cup-shaped so as to fit over and overlap the outermost end of said port tube (disk 17 and strut(s) 18 combine to form a cup-shaped cover, as claimed.)

Regarding claim 2, Polk teaches that a distance measured between an internal surface of said port cover and an exterior of said port tube is maintained therebetween to be at least *approximately* equal to one-half of the radius the predetermined internal cross-sectional area of said port tube, as broadly claimed.

Regarding claim 4, Polk teaches that the total cross-sectional area of an opening created between said port cover and said enclosure is *approximately* five times greater than the predetermined internal cross-sectional area of said port tube, as broadly claimed.

Regarding claim 5, in column 4, lines 45-48, Polk that the radius of a circle having an area equal to said first external cross-sectional area is at least 4 mm greater than the radius of a circle having an area equal to said second external cross-sectional area.

Regarding claim 6, Polk teaches that said port tube and said port cover are generally round.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Polk (US 5,809,154)** in view of **Newman (US 6,079,515)**.

Regarding claim 8, Polk does not clearly teach that a screen is used in the opening created between the port cover and enclosure, i.e., that open area between strut elements **18**.

In figure 3, Newman teaches the incorporation of a wire screen **123a** in the opening of a tubular member. It would have been obvious for one of ordinary skill in the art at the time of the invention to combine the teachings of Polk and Newman, using a wire screen in the open portions between the port cover and enclosure, for the purpose of protecting those speaker elements within the enclosure from undesirable contaminants.

Regarding claim 9, the combined teaching of Polk and Newman teaches that the screen has open area greater than *approximately* 35% and closed area less than *approximately* 65%, as broadly claimed.

Allowable Subject Matter

Claims 3 and 7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Furukawa US 4,997,057, teaches a port portion and port adaptation portion.

Sakurai US 4,210,778, teaches an external port with a plurality of diameters.

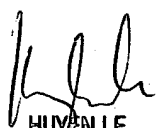
Nakano US 5,629,502 teaches an external port and outer cover member.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dionne N Harvey whose telephone number is 703-305-1111. The examiner can normally be reached on 9-6:30 M-F and alternating Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis Kuntz can be reached on 703-305-4708. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dionne Harvey


HUYEN LE
PRIMARY EXAMINER